

**CLAIMS**

1. An elementary coupling device, comprising:  
a means for stiffening the elementary coupling device against torsion;  
linking means for linking the means for stiffening to a second object to be coupled;  
first hinging means for hinging each means for linking directly or indirectly on the second object to be coupled at two separate points;  
second hinging means for hinging the means for stiffening on each means for linking at two separate points; and  
third hinging means for hinging the stiffening means directly or indirectly on a first object to be coupled at two separate points.
2. The elementary coupling device according to claim 1, wherein said stiffening means is a box.
3. The elementary coupling device according to claim 2, wherein said stiffening means is a hollow box.
4. The elementary coupling device according to claim 1, wherein all said hinging means allow rotation around any axis.
5. The elementary coupling device according to claim 1, wherein said third hinging means allows rotation around one axis said axis crossing the centres of said third hinging means.
6. The elementary coupling device according to claim 1, wherein said third hinging means allows translational movement.
7. The elementary coupling device according to claim 1, further comprising a connecting means to connecting which the means for linking are connected, this said second connecting means being hinged to the linking means by the first and second hinging means being fixed on the second object to be coupled.

8. The elementary coupling device according to claim 1, further comprising a first connecting means for connecting the first object to be coupled, this said first connecting means being hinged to the stiffening means the third hinging means at two separate points.

9. The elementary coupling device according to claim 7, further comprising a first means for connecting the first object to be coupled, this said first means for connecting being hinged to the means for stiffening by the third hinging means at two separate points.

10. The elementary coupling device according to claim 9, wherein said linking means rest on said first connecting means or said second connecting means, called means for resting, and, respectively, said second connecting means or said first connecting means are means for supporting the second object or the first object.

11. The complex coupling device further comprising three elementary coupling devices according to claim 1.

12. The complex coupling device according to claim 11, wherein said three elementary coupling device are mounted relatively to each other so that the axes of all elementary coupling devices are mutually perpendicular, these said elementary axes being the axes normal to the planes defined by the two means for linking of each elementary coupling device.

13. The complex coupling device according to claim 12, wherein the angles ( $\alpha$ ) between the axes of said linking means of the three elementary coupling devices and the vertical direction are equal to  $\arccos(\sqrt{2/3})$ .

14. The complex coupling device according to claim 11, further comprising means for absorbing vibrations and shocks linked to the means for supporting and the means for resting.

15. The complex coupling device according to claim 14, further comprising one means for absorbing vibrations and shocks in between each group of two elementary coupling devices.

16. The complex coupling device according to claim 11, further comprising means for covering the complex coupling device on its sides and/or on its top.

17. A complex coupling device further comprising three elementary coupling devices according to claim 10.

18. The complex coupling device according to claims 17, wherein said means for supporting is common to the three elementary coupling devices.

19. The complex coupling device according to claim 18, wherein said means for supporting is an inverted cone comprising an upper six-sided ring, one side out of two being hinged to the means for stiffening of one of the three elementary coupling devices.

20. The complex coupling device according to claim 17, further comprising means for absorbing vibrations and shocks linked to the means for supporting and the means for resting.

21. The complex coupling device according to claim 20, further comprising one means for absorbing vibrations and shocks in between each group of two elementary coupling devices.

22. The complex coupling device according to claim 17, further comprising means for covering the complex coupling device on its sides and/or on its top.

23. Use of a complex coupling device according to claim 11, wherein said supporting means is specially adapted for supporting radar or antenna or optical sensor equipment.